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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/868,916

07/11/2001

Kazue Watanabe

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11/10/2003

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ALEXANDRIA, VA 22314

EXAMINER

BOYD, JENNIFER A

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/868,916

Applicant(s)

WATANABE, KAZUE

Examiner

Jennifer A Boyd

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1 page 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 6 - 13 in the Response dated July 31, 2003 is acknowledged. After further consideration, the Examiner has decided to withdraw the Restriction Requirement and conduct a full examination on the merits of claims 1 - 13.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 6 is indefinite because it is unclear to when the moisture-impermeable release sheet is attached to the base sheet. Is the moisture-impermeable release sheet attached to the base sheet prior to forming the coating film on the base sheet or is it applied while drying the adhesive film to the base sheet? For the purpose of examination at this time, the Examiner will assume that the moisture-impermeable release sheet has a surface layer of the adhesive which is subsequently transferred to the base sheet, dried and then the release sheet is peeled off.

5. Claim 8 is indefinite because it is unclear what the Applicant intends. Does the Applicant mean that the adhesive is applied to at least one side of the sheet base by means of contacting the sheet with a release sheet already coated with the adhesive? For the purposes of examination at

this time, the Examiner will assume that the adhesive must be applied by means of a release sheet on at least one side of the sheet base.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1 – 3, 6 – 8 and 10 - 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Konishi et al. (US 4,844,973).

Konishi is directed to a double-coated adhesive tape.

As to claim 1, Konishi teaches a tape support, equated to Applicant's "moisture-permeable fibrous sheet base", having a pressure-sensitive adhesive on both sides (column 1, lines 5 – 15 and 29 – 35). Konishi teaches that that a release paper, equated to Applicant's "moisture-impermeable release sheet", may be placed on the pressure-sensitive adhesive (column 2, lines 54 – 61). Konishi teaches that the pressure-sensitive adhesive is in the form of an aqueous dispersion. It should be noted that it is the Examiner's position that a *dispersion* is synonymous with the term emulsion. Konishi teaches that the pressure-sensitive adhesive can be vinyl acetate (column 4, lines 1 – 3). Konishi teaches that the composite is dried under heating. Due to the adhesive being in the form of aqueous dispersion, upon drying, the adhesive layer should resemble a film. It should be noted that "covering the film of said adhesive through a drying process thereof and by peeling off said release paper after drying" is not germane to the

issue of patentability of the resin-coated sheet itself. Therefore, this limitation has not been given patentable weight.

As to claims 2 and 11, Konishi teaches that the tape support, or “moisture-permeable fibrous sheet base”, can be a nonwoven fabric or a paper (column 1, lines 29 – 32).

As to claim 3, according to Hawley’s Condensed Chemical Dictionary, vinyl acetate is a colorless transparent solid.

As to claim 6, Konishi teaches a tape support, equated to Applicant’s “moisture-permeable fibrous sheet base”, having a pressure-sensitive adhesive on both sides (column 1, lines 5 – 15 and 29 – 35). Konishi teaches that that a release paper, equated to Applicant’s “moisture-impermeable release sheet”, may have a surface layer of the pressure-sensitive adhesive (column 2, lines 54 – 61). Konishi teaches that the pressure-sensitive adhesive is in the form of an aqueous dispersion of vinyl acetate (column 4, lines 1 – 3). It should be noted that it is the Examiner’s position that a *dispersion* is synonymous with the term emulsion. Due to the adhesive being in the form of aqueous dispersion, upon drying, the adhesive layer should resemble a film. Konishi teaches that the tape support is laminated to the coating layer and then dried (column 2, lines 55 – 57). Although, Konishi does not specifically teach that the release paper, or “moisture-impermeable release sheet”, is peeled off after dry-up of the adhesive, Konishi teaches that the composite is dried under heating. The purpose of a release sheet is to protect the adhesive until ready for use, therefore, the composite would already be dried before the composite is ready for use and the sheet is peeled off.

As to claim 7, Konishi discloses that the tape support is dried under heating under the condition that the support is impregnated with the aqueous dispersion. Konishi notes that the tape

support must be sufficiently porous and thin to the extent that the aqueous dispersion can be pass through the support quickly (column 2, lines 54 – 63). Therefore, under application of heat, the application side of the adhesive on the support will be dried forcing the adhesive into the support creating an adhesive layer on the opposite side.

As to claim 8, Konishi teaches that the pressure-sensitive adhesive is applied to a release paper and then laminated to the tape support (column 2, lines 54 – 57).

As to claim 10, Konishi teaches that the final tape, which already has the adhesive applied and dried to the base sheet, is flexible and easily cut with fingers (column 4, lines 33 – 36).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Konishi et al. (US 4,844,973) in view of Bullock et al. (US 6,251,210).

Konishi teaches the claimed invention except fails to disclose drying the adhesive coating film at a temperature below 160 degrees Celsius.

Bullock discloses a method of treating a textile fabric with an aqueous primary treatment such as vinyl acetate (Abstract and column 11, lines 16 – 49) and drying the fabric at a temperature of 121 to 181 degrees Celsius (column 6, lines 12 – 23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to dry the material of Konishi at a temperature range such as 121 to 181 degrees Celsius as suggested by Bullock motivated by the desire to dry the treatment without damaging the textile material or melting the material which would result in stiffness.

10. Claims 4 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konishi et al. (US 4,844,973).

Konishi discloses the claimed invention except for that the adhesive contains 40 – 42 weight % of vinyl acetate polymer and 58 – 60 weight % of water. It should be noted that the amount of vinyl acetate polymer and water are result effective variables. For example, as the amount of vinyl acetate polymer increases in the emulsion, the composition becomes more adhesive. It would have been obvious to one having ordinary skill in the art at the time the invention was made to create the double-coated adhesive tape of Konishi with an adhesive containing 40 – 42 weight % of vinyl acetate polymer and 58 – 60 weight % of water since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the amount of vinyl acetate polymer in the adhesive to create a composition with high adhesion power.

11. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konishi et al. (US 4,844,973) in view of Davis (US 3,925,282).

Konishi teaches the claimed invention except fails to disclose that the adhesive contains a

colorant.

Davis is directed to pressure sensitive hot melt adhesives (Title) useful in applications such as tapes and labels (column 5, lines 44 – 50). Davis teaches a hot melt adhesive which may contain a vinyl acetate monomer (column 3, lines 33 – 37). Davis notes that the copolymer may be produced by emulsion polymerization techniques (column 4, lines 50 – 54). The copolymer adhesive composition may contain metallic salts which can impart color; David notes that metallic salts which impart color are chosen where color might be important (column 5, lines 15 – 28). The adhesive may be applied to a substrate and protected by a strippable paper (column 6, lines 1 – 10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made include a metallic salt which imparts color as suggested by David to the adhesive composite of Konishi motivated by the desire to create an aesthetically pleasing composite and expand the possible applications of the composite.

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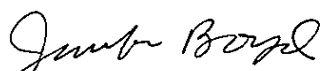
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 703-305-7082. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


Jennifer Boyd
October 30, 2003


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700